

**ONKYO®**

**FM/AM Tuner**

***T-433***

**Instruction Manual**

Thank you for purchasing an Onkyo FM/AM Tuner. Please read this manual thoroughly before making connections and plugging in the unit.

Following the instructions in this manual will enable you to obtain optimum performance and listening enjoyment from your new Tuner.

Please retain this manual for future reference.

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**WARNING:**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

**CAUTION:**

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



**WARNING**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN

**AVIS**  
RISQUE DE CHOC ELECTRIQUE  
NE PAS OUVRIR




The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**Important Safety Instructions**

1. Read these instructions.
  2. Keep these instructions.
  3. Heed all warnings.
  4. Follow all instructions.
  5. Do not use this apparatus near water.
  6. Clean only with dry cloth.
  7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
  8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
  9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
  10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
  11. Only use attachments/accessories specified by the manufacturer.
  12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. PORTABLE CART WARNING
- 

S3125A
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
  14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
  15. **Damage Requiring Service**  
Unplug the apparatus from the wall outlet and refer servicing to qualified service personnel under the following conditions:  
    - A. When the power-supply cord or plug is damaged,
    - B. If liquid has been spilled, or objects have fallen into the apparatus,
    - C. If the apparatus has been exposed to rain or water,
    - D. If the apparatus does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the apparatus to its normal operation,
    - E. If the apparatus has been dropped or damaged in any way, and
    - F. When the apparatus exhibits a distinct change in performance this indicates a need for service.
  16. **Object and Liquid Entry**  
Never push objects of any kind into the apparatus through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock.  
The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.  
Don't put candles or other burning objects on top of this unit.
  17. **Batteries**  
Always consider the environmental issues and follow local regulations when disposing of batteries.
  18. If you install the apparatus in a built-in installation, such as a bookcase or rack, ensure that there is adequate ventilation.  
Leave 20 cm (8") of free space at the top and sides and 10 cm (4") at the rear. The rear edge of the shelf or board above the apparatus shall be set 10 cm (4") away from the rear panel or wall, creating a flue-like gap for warm air to escape.

# Precautions

- 1. Recording Copyright**—Unless it's for personal use only, recording copyrighted material is illegal without the permission of the copyright holder.
- 2. AC Fuse**—The AC fuse inside the unit is not user-serviceable. If you cannot turn on the unit, contact your Onkyo dealer.
- 3. Care**—Occasionally you should dust the unit all over with a soft cloth. For stubborn stains, use a soft cloth dampened with a weak solution of mild detergent and water. Dry the unit immediately afterwards with a clean cloth. Don't use abrasive cloths, thinners, alcohol, or other chemical solvents, because they may damage the finish or remove the panel lettering.
- 4. Power WARNING**  
BEFORE PLUGGING IN THE UNIT FOR THE FIRST TIME, READ THE FOLLOWING SECTION CAREFULLY.  
AC outlet voltages vary from country to country. Make sure that the voltage in your area meets the voltage requirements printed on the unit's rear panel (e.g., AC 230 V, 50 Hz or AC 120 V, 60 Hz).  
Setting the [STANDBY/ON] switch to STANDBY does not fully shutdown the unit. If you do not intend to use the unit for an extended period, remove the power cord from the AC outlet.
- 5. Never Touch this Unit with Wet Hands**—Never handle this unit or its power cord while your hands are wet or damp. If water or any other liquid gets inside this unit, have it checked by your Onkyo dealer.
- 6. Handling Notes**
  - If you need to transport this unit, use the original packaging to pack it how it was when you originally bought it.
  - Do not leave rubber or plastic items on this unit for a long time, because they may leave marks on the case.
  - This unit's top and rear panels may get warm after prolonged use. This is normal.
  - If you do not use this unit for a long time, it may not work properly the next time you turn it on, so be sure to use it occasionally.

## For British models

Replacement and mounting of an AC plug on the power supply cord of this unit should be performed only by qualified service personnel.

### IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:

Blue: Neutral  
Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:



The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

### IMPORTANT

The plug is fitted with an appropriate fuse. If the fuse needs to be replaced, the replacement fuse must be approved by ASTA or BSI to BS1362 and have the same ampere rating as that indicated on the plug. Check for the ASTA mark or the BSI mark on the body of the fuse. If the power cord's plug is not suitable for your socket outlets, cut it off and fit a suitable plug. Fit a suitable fuse in the plug.

## For European Models

<b>Declaration of Conformity</b>	
We, ONKYO EUROPE ELECTRONICS GmbH LIEGNITZERSTRASSE 6, 82194 GROEBENZELL, GERMANY	
declare in own responsibility, that the ONKYO product described in this instruction manual is in compliance with the corresponding technical standards such as EN60065, EN55013, EN55020 and EN61000-3-2, -3-3.	
GROEBENZELL, GERMANY	 I. MORI
ONKYO EUROPE ELECTRONICS GmbH	

## Memory backup

The T-433 uses a battery-less memory backup system in order to retain radio presets and other settings when it's unplugged or in the case of a power failure. Although no batteries are required, the T-433 must be plugged into an AC outlet in order to charge the backup system.

Once it has been charged, the T-433 will retain the settings for several weeks, although this depends on the environment and will be shorter in humid climates.

The clock setting is not retained by the backup system.

## Features

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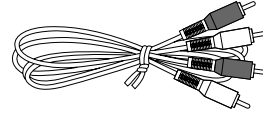
- 30 FM/AM presets
- FM/AM auto-tuning and presetting
- 4 programmable timers & sleep timer
- Preset naming for easy identification
- RDS (CT, PS, RT)
- Accuclock function
- Hi-rigidity, anti-resonant chassis
- Blue fluorescent display
- Hairline-brushed aluminium front panel
- RI (Remote Interactive) compatible

## Supplied Accessories

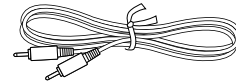
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Make sure you have the following accessories:

### Audio cable (60 cm)

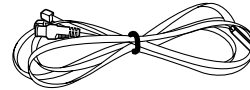


### RI cable (60 cm)

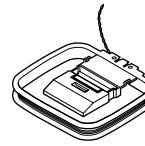


To use **RI**, the T-433 must be connected with an **RI** cable and an audio cable.

### Indoor FM antenna



### AM loop antenna



In catalogs and on packaging, the letter added to the end of the product name indicates the color of the T-433. Specifications and operation are the same regardless of color.

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## Enjoying Audio Sources

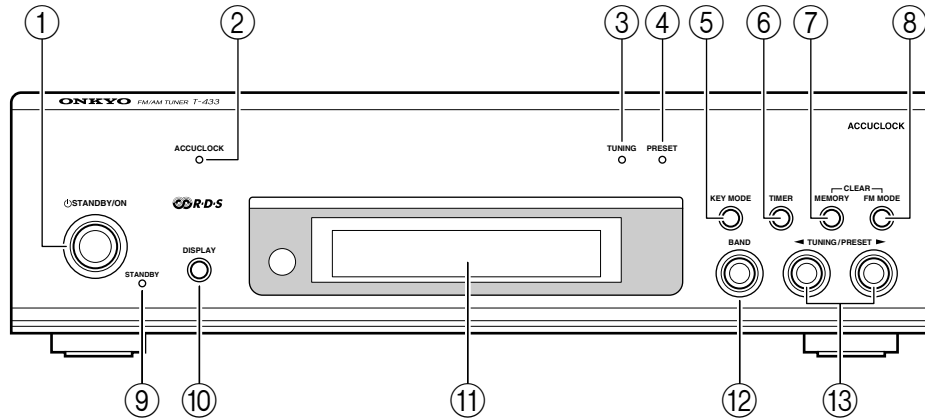
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# Front & Rear Panels

## Front Panel

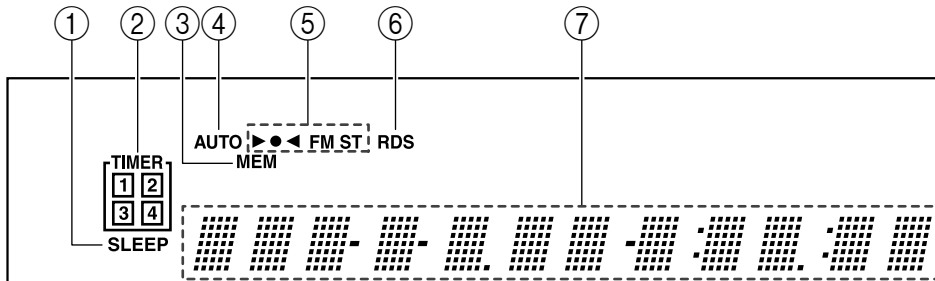


For detailed information, refer to the pages in parentheses.

- ① **STANDBY/ON button (14)**  
This button is used to set the T-433 to On or Standby.
- ② **ACCUCLOCK indicator (14)**  
This indicator flashes while the Accuclock function is automatically setting the clock, and lights continuously once the clock has been set. If the clock cannot be set, it does not illuminate.
- ③ **TUNING indicator (16)**  
This indicator lights up when Tuning mode is selected.
- ④ **PRESET indicator (17)**  
This indicator lights up when Preset mode is selected.
- ⑤ **KEY MODE button (16)**  
This button is used to select Tuning mode or Preset mode. It's also used when naming presets.
- ⑥ **TIMER button (22)**  
This button is used to set the timers.
- ⑦ **MEMORY button (16)**  
This button is used to store and delete presets.
- ⑧ **FM MODE button (19)**  
This button is used to set the FM mode to stereo or mono.
- ⑨ **STANDBY indicator (14)**  
This indicator lights up when the T-433 is in Standby mode.
- ⑩ **DISPLAY button (19)**  
This button is used to view various information on the display.
- ⑪ **Display**  
See the next page.
- ⑫ **BAND button (16)**  
This button is used to select the FM or AM band.
- ⑬ **TUNING/PRESET [◀]/[▶] buttons (16)**  
These buttons are used to tune into radio stations in Tuning mode, or to select presets in Preset mode. (The [KEY MODE] button is used to select the mode.) They're also used when setting the timers or naming presets.

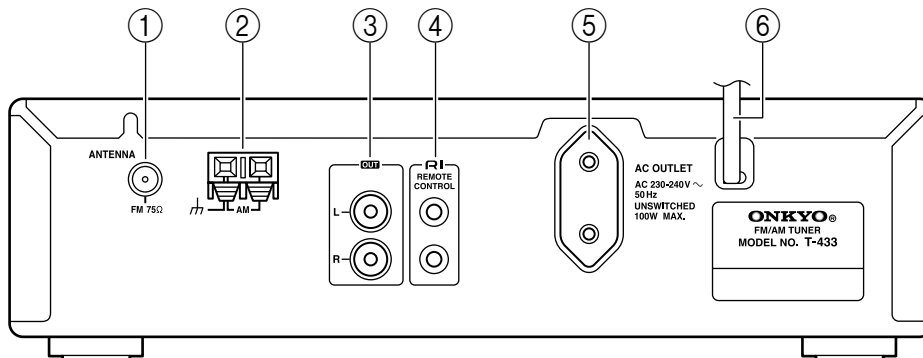
## Front & Rear Panels—Continued

### Display



- ① **SLEEP indicator**  
This indicator lights up when the sleep timer has been set.
- ② **TIMER indicators**  
These indicators show the status of the timers.  
□ : Lights up when timed recording has been set.  
Numbers 1–4: Lights up when a timer has been set.
- ③ **MEM indicator**  
This indicator lights up when storing radio presets.
- ④ **AUTO indicator**  
This indicator lights up when the FM mode is Auto.
- ⑤ **FM ST indicators**  
These indicators show the status of the radio reception.
- ⑥ **RDS indicator**  
This indicator lights up when tuned to an FM station that supports RDS.
- ⑦ **Message area**  
Various information is displayed here, including preset number, tuning frequency, time, volume level, sleep time, mode settings, and so on.

### Rear Panel



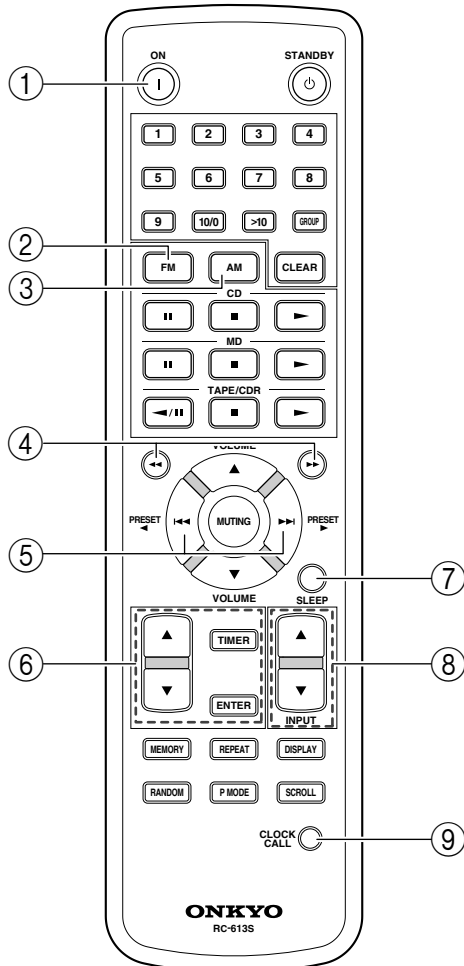
For detailed information, refer to the pages in parentheses.

- ① **FM ANTENNA (75Ω) (12)**  
This jack is for connecting the supplied indoor FM antenna or an outdoor FM antenna.
- ② **AM ANTENNA (12)**  
These push terminals are for connecting the supplied AM loop antenna or an outdoor AM antenna.
- ③ **OUT (11)**  
These output jacks should be connected to an analog audio input on the amplifier by using the supplied audio cable.
- ④ **RI REMOTE CONTROL (11)**  
These two identical RI (Remote Interactive) jacks can be connected to the RI jacks on your other Onkyo components for interactive control. To use RI, the T-433 must be connected with an RI cable and an audio cable.
- ⑤ **AC OUTLET (11)**  
This AC outlet can be used to supply power to another component.
- ⑥ **Power cord (11, 14)**  
The power cord should be connected to a suitable power source.

See pages 10–13 for connection information.

# Remote Controller

## RC-613S Remote Controller (supplied with the A-933 Integrated Amplifier)



### ① ON button (14)

Press once to turn on the A-933. Press again to turn on the T-433 (and any other components connected via **RI**). To turn on just the A-933 and T-433, press either the [FM] or [AM] button.

### ② FM button (16)

This button can be used to select FM.

If the T-433 and A-933 are connected with an **RI** cable, pressing this button while the entire system is on Standby will turn on only the T-433 and A-933. All other components will remain on Standby.

### ③ AM button (16)

This button can be used to select AM.

If the T-433 and A-933 are connected with an **RI** cable, pressing this button while the entire system is on Standby will turn on only the T-433 and A-933. All other components will remain on Standby.

### ④ Tuning [◀▶]/[▶▶] buttons (19)

When the input source on the A-933 is set to TUNER, these buttons can be used to tune into stations.

### ⑤ PRESET [◀▶]/[▶▶] buttons (19)

When the input source on the A-933 is set to TUNER, these buttons can be used to select presets.

### ⑥ TIMER, ENTER & [▲]/[▼] buttons (22)

These buttons are used to set the timers.

### ⑦ SLEEP button (27)

This button is used to set the sleep timer.

### ⑧ INPUT [▲]/[▼] buttons

These buttons can be used to select the TUNER input source on the A-933.

### ⑨ CLOCK CALL button (15)

This button is used to display the clock.

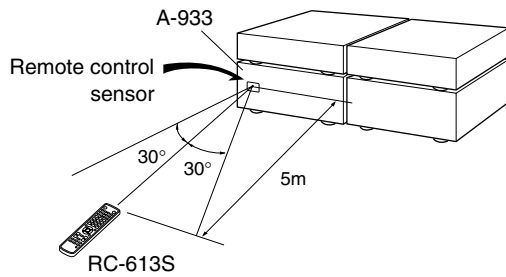


## Remote Controller—Continued

### Using the Remote Controller

The T-433 doesn't have its own remote controller, but it can be controlled by using the RC-613S remote controller that's supplied with the Onkyo A-933 Integrated Amplifier. The T-433 and A-933 must be connected with an **RI** cable and an audio cable for this to work.

When controlling the T-433 with the A-933's remote controller, point the controller at the A-933's remote control sensor, as shown.



#### Notes:

- The remote controller may not work reliably if the A-933 is subjected to bright light, such as direct sunlight or inverter-type fluorescent lights. Keep this in mind when installing.
- If another remote controller of the same type is used in the same room, or the A-933 is installed close to equipment that uses infrared rays, the remote controller may not work reliably.
- Don't put anything, such as a book, on the remote controller, because the buttons may be pressed inadvertently, thereby draining the batteries.
- The remote controller may not work reliably if the A-933 is installed in a rack behind colored glass doors. Keep this in mind when installing.
- The remote controller will not work if there's an obstacle between it and the A-933's remote control sensor.

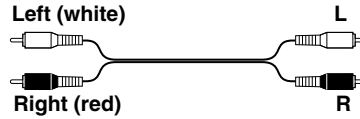
# Connecting the T-433

## Before Making Any Connections

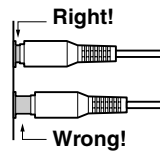
- Refer to the instructions that came with the component you are connecting.
- Do not plug in the power cord until all other connections are complete.
- Do not bind audio cables with power cords and speaker cables. Doing so may adversely affect the sound quality.
- To prevent interference, keep power cords and speaker cables as far away as possible from the tuner's antennas.

## RCA Audio Connection Color Coding

- Red connectors are used for the right channel, and white connectors are used for the left channel.



- Push each plug in all the way to make a good connection (loose connections can cause noise or malfunctions).



## About the System Functions

If you connect another component from the Onkyo Separate Collection to the T-433 with the supplied **RI** and audio cables, you can use the following system functions. **RI** cables are special cables solely for use with Onkyo products.

Connecting components from the Onkyo Separate Collection.



See the amplifier's instruction manual.

### Auto Power On

When you turn on the power or start playback on the T-433, the amplifier will turn on automatically. (The amplifier's POWER switch must be set to ON for this to work.)

### Direct Change

When a preset is selected, or the FM or AM band is selected, the amplifier will automatically select the tuner input.

### Remote Control Operation

You can control the T-433 by using the A-933's remote controller.



See page 8 for more information.

### Program Timer

You can program the T-433's timers to automatically start playback or recording at a specified time.



See page 22 for more information.

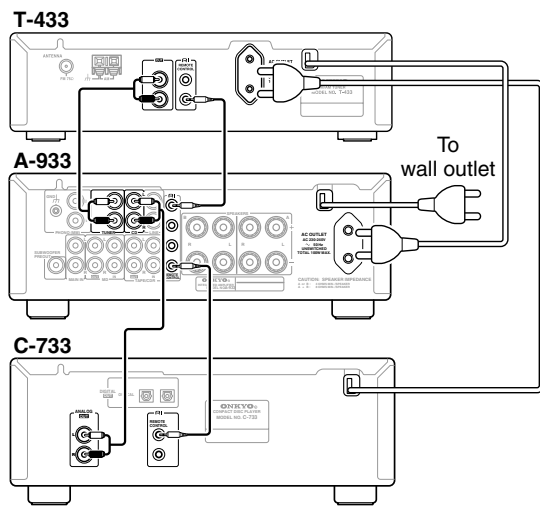
- Simply connecting an **RI** cable will not enable the system functions. You must make an audio connection as well. See page 11 for more information.
- See the instruction manual supplied with each component for more information about the **RI** system functions.

## Connecting the T-433—Continued

### System Connections (necessary to use the timers)

To use the T-433's timers with your other Onkyo Separate Collection components, connect the power cords, **RI** cables, and audio cables as shown below.

- Be sure to connect the T-433's power cord to an unswitched AC outlet, one that supplies power continuously.
- Be sure to make the necessary audio cable connections. Refer to the A-933's instruction manual for details.

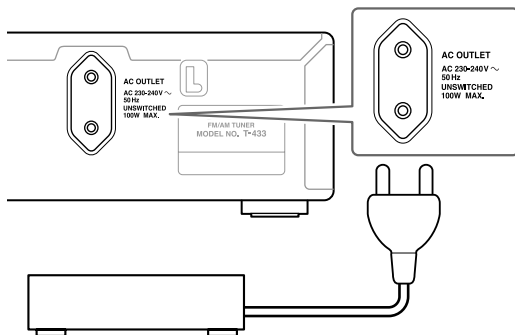


#### Note:

When you use the T-433's clock or timer functions, connect the T-433's power cord to an AC outlet that supplies power continuously.

### Connecting Another Component's Power Cord

The T-433 has an AC OUTLET on its rear panel. This can be used to connect the power cord of another audio component that you intend to use with the T-433.



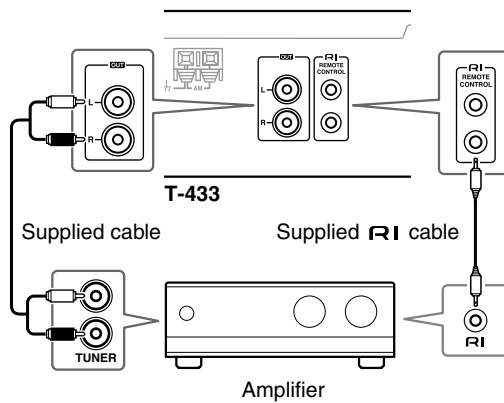
#### Caution:

Make sure that the maximum power requirement of the component connected to the AC OUTLET does not exceed the capacity printed on the T-433's rear panel (100W).

### Connecting an Amplifier

Use the supplied audio cable to connect the T-433's OUT L/R jacks to the analog input jacks on the amplifier, as shown.

To use the **RI** system functions, use the supplied **RI** cable to make an **RI** connection.

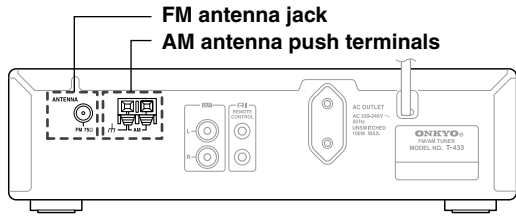


#### Notes:

- The T-433 has two **RI** jacks. They're both the same, so you can use either one.
- To use **RI**, you must make an audio connection between the T-433 and the other component.
- Use only dedicated **RI** cables for **RI** connections.
- If the T-433 is used with another component from the Onkyo Separate Collection, such as the A-933, refer to its instruction manual as well.

# Connecting Antennas

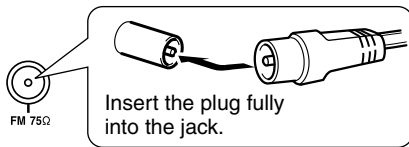
This section explains how to connect the supplied indoor FM antenna and AM loop antenna and how to connect commercially available outdoor FM and AM antennas.



## Connecting the Indoor FM Antenna

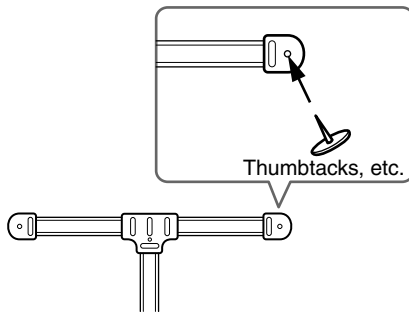
The supplied indoor FM antenna is for indoor use only.

### 1 Attach the FM antenna, as shown.



Once your T-433 is ready for use, you'll need to tune into an FM radio station and adjust the position of the FM antenna to achieve the best possible reception.

### 2 Use thumbtacks or something similar to fix the FM antenna into position.



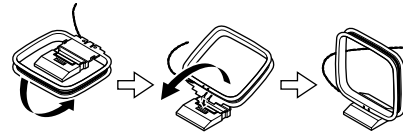
**Caution:** Be careful that you don't injure yourself when using thumbtacks.

If you cannot achieve good reception with the supplied indoor FM antenna, try using a commercially available outdoor FM antenna instead.

## Connecting the AM Loop Antenna

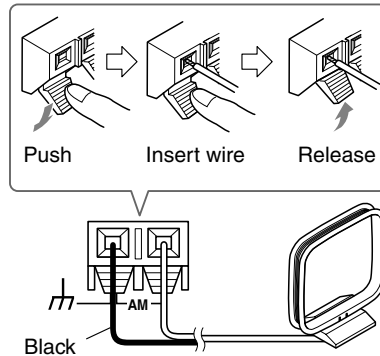
The supplied indoor AM loop antenna is for indoor use only.

### 1 Assemble the AM loop antenna, inserting the tabs into the base, as shown.



### 2 Connect both wires of the AM loop antenna to the AM push terminals, as shown.

The antenna connection is polarity sensitive. Connect the black wire to the ground terminal (⏏). Connect the other wire to the other terminal. Make sure that the wires are attached securely and that the push terminals are gripping the bare wires, not the insulation.



Once your T-433 is ready for use, you'll need to tune into an AM radio station and adjust the position of the AM antenna to achieve the best possible reception.

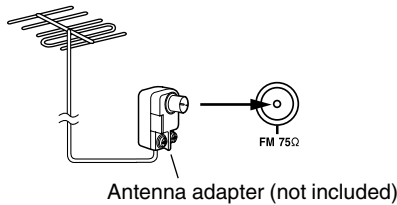
Keep the antenna as far away as possible from your T-433, TV, speaker cables, and power cords.

If you cannot achieve good reception with the supplied indoor AM loop antenna, try using it with a commercially available outdoor AM antenna.

## Connecting Antennas—Continued

### Connecting an Outdoor FM Antenna

If you cannot achieve good reception with the supplied indoor FM antenna, try using a commercially available outdoor FM antenna instead.

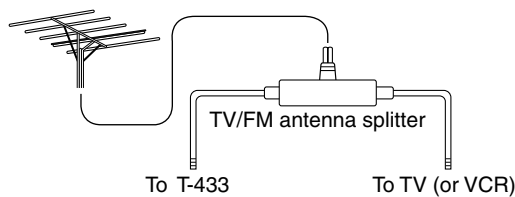


#### Notes:

- Outdoor FM antennas work best outside, but acceptable results can sometimes be obtained when installed in an attic or loft.
- For best results, install the outdoor FM antenna well away from tall buildings, preferably with a clear line of sight to your local FM transmitter.
- Outdoor antenna should be located away from possible noise sources, such as neon signs, busy roads, etc.
- Outdoor antenna should be located away from possible noise sources, such as neon signs, busy roads, etc.
- For safety reasons, outdoor antenna should be situated well away from power lines and other high voltage equipment.
- Outdoor antenna must be grounded in accordance with local regulations to prevent electrical shock hazards.

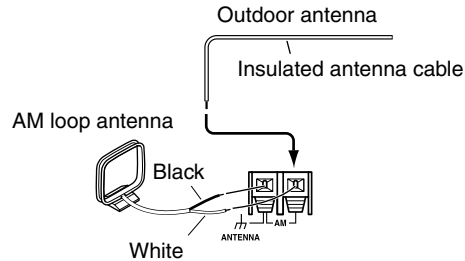
### Using a TV/FM Antenna Splitter

It's best not to use the same antenna for both FM and TV reception, as this can cause interference problems. If circumstances demand it, use a TV/FM antenna splitter, as shown.



### Connecting an Outdoor AM Antenna

If good reception cannot be achieved using the supplied AM loop antenna, an outdoor AM antenna can be used in addition to the loop antenna, as shown.

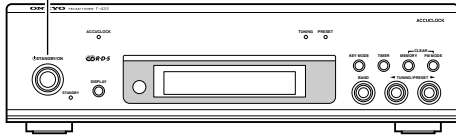



Outdoor AM antennas work best when installed outside horizontally, but good results can sometimes be obtained indoors by mounting horizontally above a window. Note that the AM loop antenna should be left connected.

Outdoor antenna must be grounded in accordance with local regulations to prevent electrical shock hazards.

## Turning On the T-433

### STANDBY/ON



- 1** Plug the power cord into a suitable wall outlet (or the AC OUTLET on the A-933's rear panel).
- 2** Press the T-433's [STANDBY/ON] button.  


The T-433 turns on, and the STANDBY indicator goes off.

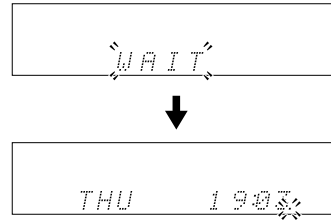
To turn off the T-433, press the [STANDBY/ON] button. The T-433 will enter Standby mode.

The T-433 is not completely shutdown in Standby mode.

## First Time Setup (European models only)

The very first time you turn on the T-433, the Accuclock function automatically sets the clock by using the CT (Clock Time) information present in RDS radio broadcasts. While the clock is being set, "WAIT" flashes on the display, as shown. It may take up to 5 minutes to set the clock.

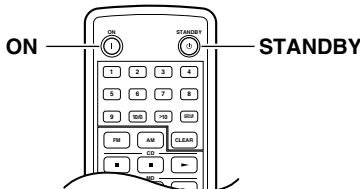
When the clock has been set, the message "CLOCK ADJUSTED" scrolls across the display, then the day and time are displayed for a while, as shown.



The Accuclock function automatically updates the clock daily at 2 A.M., 3 A.M. and 2 P.M.

If the clock is incorrect, see "Setting the Clock Manually" on page 21.

## Using the A-933's Remote Controller



**RC-613S (remote controller supplied with the A-933)**

If you're using the T-433 together with the A-933 amplifier from the Onkyo Separate Collection, press the remote controller's [ON] button once to turn on the A-933, and press it again to turn on the T-433.

To set the entire system to Standby, press the remote controller's [STANDBY] button.

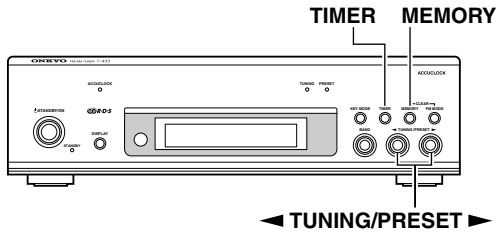
**Note:**

To turn on only the A-933 and T-433, press T-433's [BAND] button or the remote controller's [FM] or [AM] button.




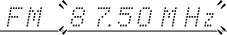
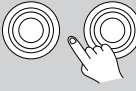

## First Time Setup (European models only)—Continued

### Setting Accuclock to a Specific Station

The Accuclock function normally uses the FM station with the strongest signal to set the clock. If the clock cannot be set properly using that station, you can specify which FM station the Accuclock function uses. This must be an FM station that supports RDS CT (Clock Time) information.



Before proceeding, turn on the T-433.

<b>1</b> 	<p><b>Press the [TIMER] button.</b> “CLOCK” appears on the display. If the clock has already been set, a timer option appears instead. In this case, you’ll need to press the [TIMER] button repeatedly until “CLOCK” appears.</p>
<b>2</b> 	<p><b>Press the [MEMORY] button.</b> “AUTO” appears on the display. If “MANUAL” appears, use the TUNING/PRESET [◀]/[▶] buttons to select “AUTO.”</p>
<b>3</b> 	<p><b>Press the [MEMORY] button.</b> The display appears as shown.</p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;">  </div>
<b>4</b> 	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons to tune into the FM station.</b> The RDS indicator appears when tuned into an RDS station, as shown.</p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px 0;">  </div> <p><b>Hint:</b> If you press the [MEMORY] button, the T-433 will automatically search for a suitable station.</p>

**5**



**Press the [MEMORY] button.**

While the clock is being set, “WAIT” flashes on the display. It may take a few minutes to set the clock. When the clock has been set, the message “CLOCK ADJUSTED” scrolls across the display, then the day and time are displayed for a while.

#### Notes:

- If the clock does not set correctly, specify another FM station and try again, or set the clock manually (see page 21).
- If you don’t want the clock to be updated automatically each day, you can turn off the Accuclock function (see page 15).

### Selecting 12- or 24-hour Clock Display

Before proceeding, turn on the T-433.

<b>1</b>	<p><b>Press the [TIMER] button repeatedly until “24H/12H” appears on the display.</b></p>
<b>2</b>	<p><b>Press the [MEMORY] button.</b></p>
<b>3</b>	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons to select “24H” or “12H.”</b></p>
<b>4</b>	<p><b>Press the [MEMORY] button.</b> The default setting is 24H.</p>

### Switching the Clock Display On or Off While on Standby

Press the T-433’s [DISPLAY] button.



When the clock display is turned off, the ACCUCLOCK indicator goes off.

### Displaying the Clock & Day of the Week (remote controller only)

Press the remote controller’s [CLOCK CALL] button.



Press the [CLOCK CALL] button again to turn off the clock and day of the week display. You can save energy by leaving the clock display turned off while the T-433 is on Standby.

# Listening to the Radio

You can store up to 30 of your favorite radio stations as presets for quick selection. Stations can be preset automatically using the Auto Preset function or manually.

**Notes:**

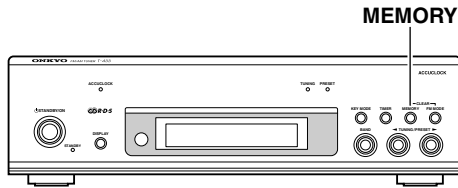
- You can preset up to 30 FM/AM stations. If you try to store more than this, the message “FULL” will appear on the display.
- Using the remote controller while listening to an AM radio station may cause interference.
- If the power cord is disconnected, or the power is off for more than 2 weeks, the preset settings may be lost, in which case, you’ll need to store them again.

## Presetting All Stations Automatically (Auto Preset)

With the Auto Preset function, you can search and store all of the radio stations available in your area in one go.

**Notes:**

- All existing presets will be replaced when the Auto Preset function is used.
- Be sure that your antennas are positioned so as to obtain the best possible reception (see page 12).



**Press and hold the [MEMORY] button for about 5 seconds until auto tuning starts.**

When the [MEMORY] button is pressed, first, the MEM indicator lights up. Next, “AUTO PRESET” flashes on the display, followed by the tuning frequency, and then auto tuning starts. When a station is found, auto tuning stops and the ►●◄ indicator lights up.

Starting at the bottom of the frequency band, the T-433 automatically tunes and stores up to 20 FM stations, then up to 10 AM stations.

**Note:**

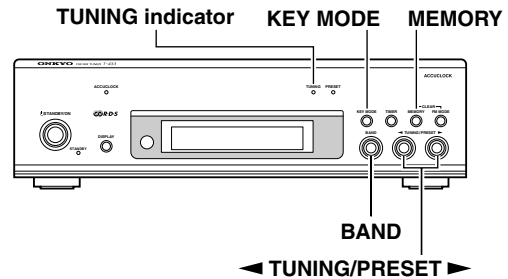
Depending on your location, a preset may be stored with no station and you’ll hear only noise when you select it. In this case, delete the preset (see page 19).

## Presetting Stations Manually

Here you can tune into stations individually and store them as presets. This allows you to store stations in any order you like.

**Notes:**

- You can store up to 30 stations, and this can be any combination of FM and AM stations. For example, 17 FM stations and 13 AM stations, or 8 FM stations and 22 AM stations.
- Although the numbering schemes for FM and AM presets both start at 1, it doesn’t matter because FM and AM presets are selected independently.
- Stations can be stored to presets in any order. For example, you could store some AM stations to presets 2, 1, 9, and so on.



- 1 Use the [BAND] button to select FM or AM.**

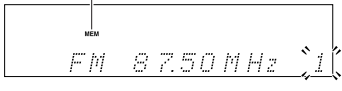
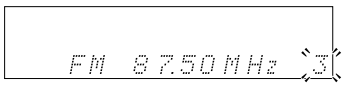
The band switches between FM and AM each time you press the button.
- 2 Use the [KEY MODE] button to select Tuning mode (TUNING indicator on).**

The mode switches between Tuning and Preset each time you press the button.
- 3 Press a TUNING/PRESET [◀]/[▶] button for 1 second until auto tuning starts.**

The frequency display changes during auto tuning. Auto tuning stops when a station is found.



## Listening to the Radio—Continued

<b>4</b>	<p><b>Press the [MEMORY] button.</b></p> <p style="text-align: center;">MEM indicator</p>  <p>The MEM indicator appears and the preset number flashes. If you don't complete the next step within 8 seconds, the T-433 will return to the previous condition and the MEM indicator will disappear.</p> <p><b>Note:</b> Be careful not to press the [MEMORY] button for too long because "AUTO PRESET" will flash on the display and the Auto Preset function will begin, replacing all of your previously stored presets.</p>
<b>5</b>	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons to select a preset number from 1 through 30.</b></p> 
<b>6</b>	<p><b>Press the [MEMORY] button again to store the station.</b></p> <p>The station is stored, the preset number stops flashing, and the MEM indicator disappears.</p> <p>Repeat this procedure for all your favorite radio stations.</p>

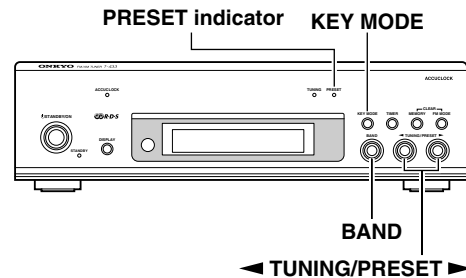
**Note:**  
If you store a station to a preset that already had a station stored in it, the previous station will be replaced.

### After Storing Presets You Can


- Select them and enjoy your favorite stations
- Name them for easy identification (see page 18).
- Delete them (see page 19).

## Selecting Preset Stations

You must store some presets before you can select them (see page 16).



Before proceeding, turn on the T-433.

<b>1</b>	<p><b>Use the [BAND] button to select FM or AM.</b></p>  <p>The band switches between FM and AM each time you press the button.</p>
<b>2</b>	<p><b>Use the [KEY MODE] button to select Preset mode (PRESET indicator on).</b></p> <p>The mode switches between Tuning and Preset each time you press the button.</p>
<b>3</b>	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons to select a preset.</b></p> <p>Press the Down [◀] button to select the previous preset. Press the Up [▶] button to select the next preset.</p> <p>The number of the currently selected preset is shown on the display.</p>

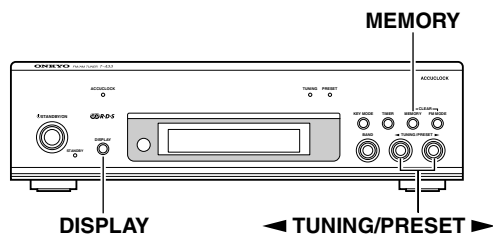
## Listening to the Radio—Continued

### Naming Presets

Radio presets can be named for easy identification, and names may contain up to 8 characters from the following selection.

\_ A B C D E F G H I J K L M N O P Q R S T U V W  
X Y Z  
a b c d e f g h i j k l m n o p q r s t u v w x y z  
" ' & ( ) [ ] \* + , - . / = ? 0 1 2 3 4 5 6 7 8 9

The underscore ( \_ ) character is actually a space.



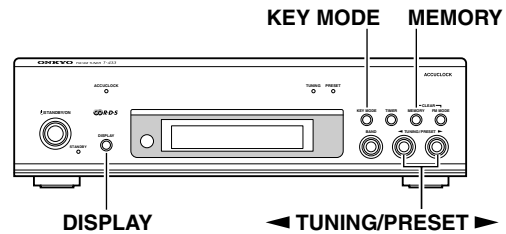
<b>1</b>	<p><b>Select the preset that you want to name.</b> See page 17 for selecting presets.</p>
<b>2</b>	<p><b>Press and hold down the [DISPLAY] button for 3 seconds to select Name Edit mode.</b> The cursor appears on the display.</p>
<b>3</b>	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons to select the characters.</b></p>
<b>4</b>	<p><b>Press the [MEMORY] button to set the character.</b> The cursor moves to the next character.</p>
<b>5</b>	<p><b>Repeat steps 3 and 4 to enter the other characters. Press the [DISPLAY] button when you've finished.</b> The radio frequency reappears on the display.</p>

#### Hints:

- To cancel the naming process without storing the name, press the [MEMORY] button.
- After the eighth character has been entered, pressing the [MEMORY] button will move the cursor back to the first character.

### Correcting Characters

If Name Edit mode is not selected, follow steps 1 and 2 in the left column.



<b>1</b>	<p><b>KEY MODE</b> Press the [KEY MODE] button to change the cursor from a thin line to a thick line.</p>
<b>2</b>	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons to select the character to edit.</b></p>
<b>3</b>	<p><b>KEY MODE</b> Press the [KEY MODE] button again to change the cursor back to a thin line.</p>
<b>4</b>	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons to change the character.</b></p>
<b>5</b>	<p><b>MEMORY</b> Press the [MEMORY] button to move the cursor to the next character.</p>
<b>6</b>	<p><b>DISPLAY</b> Press the [DISPLAY] button to store the name and exit Name Edit mode.</p>

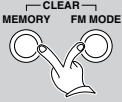
#### Note:

Text editing features such as moving subsequent characters to the right when a new character is inserted, or moving subsequent characters to the left when a character is deleted are not supported.

## Listening to the Radio—Continued

### Deleting All Characters in One Go

If Name Edit mode is not selected, follow steps 1 and 2 in the left column.



**While holding down the [MEMORY] button, press the [FM MODE] button.**

**Note:**

Make sure that Name Edit mode is selected before doing this because if it isn't, the current preset will be deleted instead.

### Deleting Presets

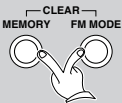
Individual presets can be deleted as follows.

**1**

**Select the preset that you want to delete.**

See page 17 for selecting presets.

**2**



**While holding down the [MEMORY] button, press the [FM MODE] button.**

The preset number on the display changes to "--" and the preset is deleted.

### Displaying Information

By pressing the T-433's [DISPLAY] button repeatedly, you can view the tuning frequency, text (preset name or RDS), or clock.

DISPLAY



Frequency

FM 87.50MHz 3



Text (preset name or RDS)

ONKYO 3



Clock

SUN 1750:20

**Notes:**

- If the current preset doesn't have a name, no text will be displayed.
- If the clock hasn't been set, the clock will not be displayed.

### FM Mode



In places where the signal strength is weak or reception is noisy, press the [FM MODE] button to listen in mono (AUTO indicator off). This will reduce the noise and any break up in reception.

To return to stereo, press the [FM MODE] button again (AUTO indicator on).

### Tuner Operation with the RC-613S Remote Controller (supplied with the A-933)

#### Selecting FM or AM

These buttons can be used to select FM or AM.

If the T-433 and A-933 are both on Standby, pressing either of these buttons will turn on the T-433 and A-933.

#### Tuning Manually

Press the Down [◀◀] button to decrease the tuning frequency.

Press the Up [▶▶] button to increase the tuning frequency.

#### Selecting Radio Presets

Press the Down [◀] button to select the previous preset.

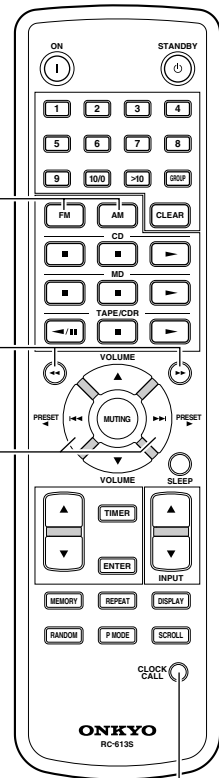
Press the Up [▶] button to select the next preset.

#### Displaying the Clock

Press the [CLOCK CALL] button to display the clock.

**Note:**

If you're using a different Onkyo Separate Collection amplifier's remote controller, refer to its instruction manual for operating information.



## Listening to the Radio—Continued

### Using RDS (European models only)

RDS stands for *Radio Data System* and is a method of transmitting data in FM radio signals. Many FM stations use it these days.

The T-433 supports the following types of RDS data:

■ **PS: Program Service Name**

When tuned to an RDS station that's broadcasting PS information, the station's name appears on the display.

■ **RT: Radio Text**

When tuned to an RDS station that's broadcasting RT text information, the text scrolls across the display.

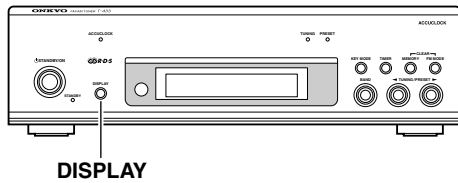
**Note:**

If the signal from an RDS station is weak, RDS data maybe displayed intermittently or not at all.

### Displaying Radio Text (RT)

**Note:**

You must be tuned to an FM station that supports RT (Radio Text) in order to display any text.



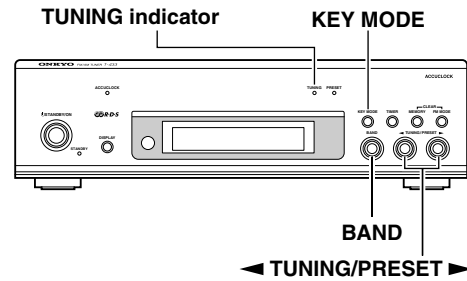
**Press the [DISPLAY] button repeatedly to show the following information.**

Frequency	→	Preset name or PS (Program Service name)
	↑	↓
Clock	←	RT (Radio Text)

**Notes:**

- If the current station does not support RDS, only the frequency, preset name (see page 18), and clock will be displayed. If the current preset has no name, only the frequency and clock will be displayed.
- In some cases, it may take between 2 and 15 seconds for the RT text to be displayed.
- The message "Waiting" may appear while the RT data is being received.
- When tuned to an RDS station that's not transmitting any RT data, the message "No Text" will be displayed.

### Tuning into Radio Stations Manually



- 1 Use the [BAND] button to select FM or AM.**

The band switches between FM and AM each time you press the button.
- 2 Use the [KEY MODE] button to select Tuning mode (TUNING indicator on).**

The mode switches between Tuning and Preset each time you press the button.
- 3 Use the TUNING/PRESET [◀]/[▶] buttons to tune into a station.**

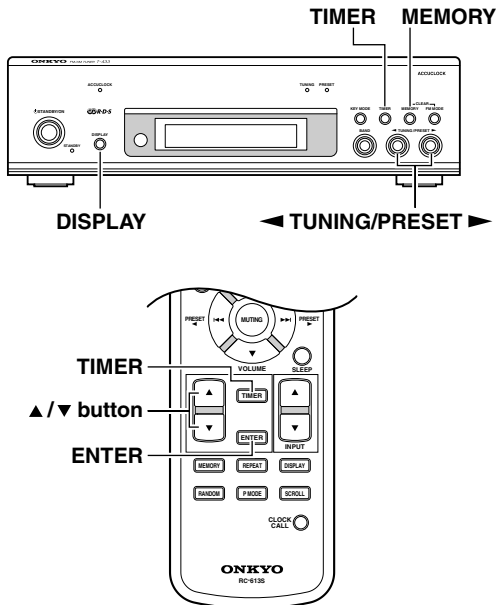
The tuning frequency is shown on the display.

For each button press, the frequency will change in 0.02 MHz steps for FM, and 9 kHz steps for AM.




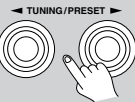
If you hold down the button for more than 0.5 second, the T-433 will find the next station automatically.


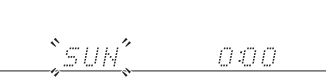
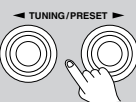
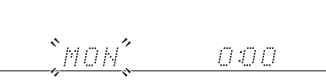



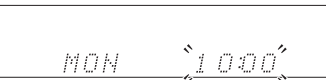

# Setting the Clock Manually

If for some reason the Accuclock function cannot set the clock or you want to set it manually, proceed as follows.



The clock can show time in 12- or 24-hour format (see page 15). The 24 hour format is used in this procedure. The clock can be set from the T-433's front panel or the A-933's remote controller. Where different, the name of the remote controller's button is shown in parentheses.

<b>1</b> 	<p><b>Press the [TIMER] button repeatedly until "CLOCK" appears on the display.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">CLOCK</div>
<b>2</b> 	<p><b>Press the [MEMORY] button (ENTER).</b></p> <p style="text-align: center;">AUTO indicator</p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">  </div> <p>The AUTO indicator appears.</p>
<b>3</b> 	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons (TIMER [▲]/[▼]) to select "MANUAL."</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">MANUAL</div> <p>The mode switches between AUTO and MANUAL each time you press the button.</p>

<b>4</b> 	<p><b>Press the [MEMORY] button (ENTER).</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">  </div> <p>The clock setting mode is set to manual and the day setting appears.</p>
<b>5</b> 	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons (TIMER [▲]/[▼]) to select the day of the week.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">  </div> <p>SUN: Sunday          MON: Monday          TUE: Tuesday          WED: Wednesday          THU: Thursday          FRI: Friday          SAT: Saturday</p>
<b>6</b> 	<p><b>Press the [MEMORY] button (ENTER) to set the day of the week.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">  </div> <p>The time setting appears.</p>
<b>7</b> 	<p><b>Use the TUNING/PRESET [◀]/[▶] buttons (TIMER [▲]/[▼]) to set the time.</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center; width: fit-content; margin: 10px auto;">  </div> <p>Pressing and holding a button changes the time quickly.</p>
<b>8</b> 	<p><b>Press the [MEMORY] button (ENTER).</b></p> <p>The clock is set.</p>

**Notes:**

- To cancel this procedure without setting the time, press the [TIMER] button.
- To set the clock automatically with the Accuclock function, select "AUTO" in step 3, and then press the MEMORY button (ENTER).

# Using the Timers

The T-433 has five timers: four programmable timers for automated playback or recording, and a sleep timer for turning the system off after a specified time.

The timers can be used with other Onkyo Separate Collection components that are connected to the A-933 via **RI** (see page 11 for connection details).

## About the Timers

The settings for the four programmable timers are explained here. For details on using the sleep timer, see page 27.

### Timer Types

Each timer can be programmed to **PLAY** or **REC**.

#### ■ **PLAY**

**PLAY** mode can be used to start playback on a component at a specified time. The component must be connected to the A-933 with an **RI** cable. You could use a **PLAY** timer to turn on the T-433 every morning, just like a radio alarm.

#### ■ **REC**

**REC** mode can be used to start playback on one component and start recording on another component both at a specified time. The recording component (e.g., Onkyo MD recorder or cassette deck) and playback component must both be connected to the A-933 with an **RI** cable. You could use a **REC** timer to record your favorite radio show everyday.

### Playback & Recording Components

The playback component can be the T-433 (FM or AM), another Onkyo component (CD player, MD recorder, cassette deck, etc) that's connected to the A-933 with an **RI** cable, or a component with its own built-in timer that's connected to an audio input on the A-933.

The recording component can be an Onkyo MD recorder or cassette deck that's connect to the A-933 with an **RI** cable.

### Repeat Timers

Each timer can be programmed to work just once (**ONCE**), every week (**EVERY**), every day (**EVERY DAY**), or on a range of days (**DAYS SET**).

#### ■ **ONCE**

The timer will work just once.

#### ■ **EVERY**

The timer will work every week on the specified day and time.

#### • **EVERYDAY**

The timer will work every day.

#### • **DAYS SET**

The timer will work on the specified range of days. With this setting, you could set up a morning alarm for Monday through Friday.

### Timer Usage Examples

Here are three typical applications for the timers.

#### ■ **TIMER 1: Early morning radio alarm**

PLAY-FM-1-EVERY-EVERYDAY-7:00-7:30

#### ■ **TIMER 2: Record a radio show this Sunday**

REC-FM-4-TAPE-ONCE-SUN-10:00-12:00

#### ■ **TIMER 3: Record an FM radio show to MDR everyday from Monday through Friday.**

REC-FM-1-MD-EVERY-DAYS SET-MON-FRI-15:00-15:30

#### Notes:

- Make sure that the T-433, the playback component, and the recording component are all properly connected to the A-933. Poor connections may cause timed playback or recording to fail.
- During timed recording, the A-933 is muted. To listen to the sound during recording, press the remote controller's [MUTING] button.
- While timed playback or recording is in progress, the timer's start and end times cannot be changed.
- The timers cannot be set if the clock has not been set, so set the clock first (see page 14).
- Pressing the [TIMER] button while timed playback or recording is in progress will turn off the current timer.
- Even if the T-433's clock is set correctly, recording may not start exactly at the specified time if the recording component requires a few moments to read CD or MD (TOC) information before it begins recording. For this reason, it's recommended that you set the recording start time about 1 minute early.

### About the Timer Display



When one of the timers has been set, the **TIMER** indicator is shown on the display. While a timer that has been set is on, its number is displayed. A square (□) around a number indicates that it's a **REC** timer.

### Timer Priority

If two or more timers are set to start at the same time on the same day, the lower numbered timer has priority and the other timer is ignored.

**Timer 1:** 12:00-13:00 (This timer has priority.)

**Timer 2:** 12:00-12:30

If the times of two or more timers overlap on the same day, the timer with the earliest start time has priority and the other timer is ignored.

**Timer 1:** 9:00-10:00

**Timer 2:** 8:00-10:00 (This timer has priority.)

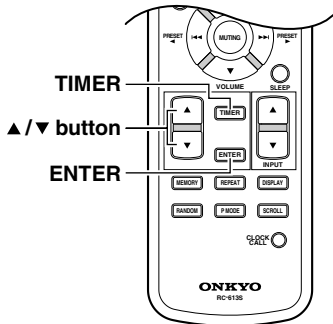
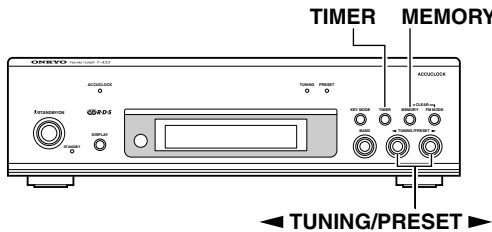
## Using the Timers—Continued

### Setting the Timers

This section explains how to set the timers.

**Notes:**


- You must set the clock before you can set a timer (see page 14).
- To use a timer to start radio playback (FM/AM), you must preset a station first (see page 16).
- You cannot change a timer's start or end time while timed playback or recording is in progress.
- If at any point during this procedure you don't do anything for more than 60 seconds, the previous display will appear and the procedure will be cancelled.
- When the specified time comes, all connected system components will automatically switch to Standby.




Timers can be set from the T-433's front panel or the A-933's remote controller. Where different, the name of the remote controller's button is shown in parentheses.

Before proceeding, turn on the T-433.

**1**




↓




↓

<Remote controller>



↓



**<Select a Timer>**  
**Press the [TIMER] button repeatedly to select a timer.**

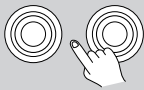
TIMER 1

You can select TIMER1, TIMER2, TIMER3, or TIMER4.


If TIMER1–4 don't appear, this means that the clock has not yet been set (see page 14).

**Press the [MEMORY] button (ENTER).**

**2**

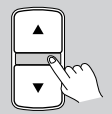


↓




↓

<Remote controller>



↓



**<Selecting the Timer Type>**  
**Use the TUNING/PRESET [◀]/[▶] buttons (TIMER [▲]/[▼]) to select the type of timer.**

PLAY

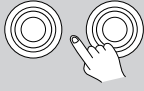
Or

REC


You can select PLAY or REC.

**Press the [MEMORY] button (ENTER).**

**3**

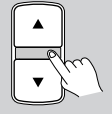


↓




↓

<Remote controller>



↓



**<Select the Playback Component>**  
**Use the TUNING/PRESET [◀]/[▶] buttons (TIMER [▲]/[▼]) to select the playback component.**

FM

AM

You can select FM, AM, MD, LINE, or CD.

**Press the [MEMORY] button (ENTER)**

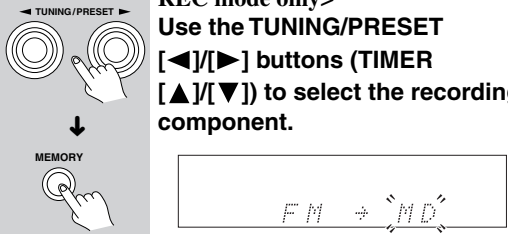
If you selected FM or AM, use the TUNING/PRESET [◀]/[▶] buttons to select a radio preset, and then press the [MEMORY] button (ENTER).

**Note:**  
 Only consecutive days can be selected. You cannot, for example, select Monday, Wednesday, and Friday.

## Using the Timers—Continued

**4**

**<Select the Recording Component—  
REC mode only>**  
Use the **TUNING/PRESET** [**◀**]/[**▶**] buttons (TIMER [**▲**]/[**▼**]) to select the recording component.

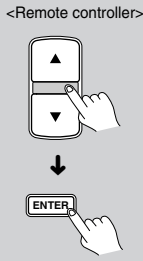


↓

**MEMORY**

You can select TAPE or MD.

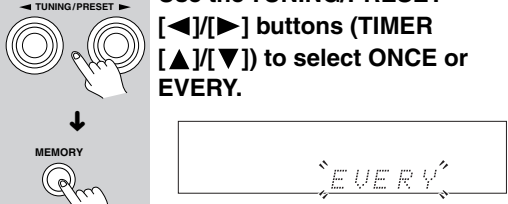
**Press the [MEMORY] button (ENTER).**



<Remote controller>

**5**

**<Set the Day>**  
Use the **TUNING/PRESET** [**◀**]/[**▶**] buttons (TIMER [**▲**]/[**▼**]) to select ONCE or EVERY.



↓

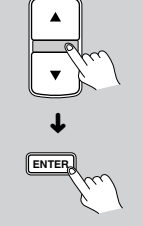
**MEMORY**

**ONCE:** The timer will work just once.  
**EVERY:** The timer will work every week on the specified day and time.

**Press the [MEMORY] button (ENTER).**

If you selected ONCE, you can select the day.

**Use the TUNING/PRESET** [**◀**]/[**▶**] buttons (TIMER [**▲**]/[**▼**]) to select the day.  
You can select: SUN, MON, TUE, WED, THU, FRI, or SAT.



<Remote controller>

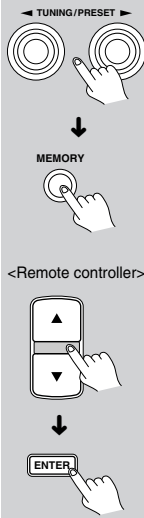
If you selected EVERY, you can select one day, everyday, or a range of days (DAYS SET).

**Use the TUNING/PRESET** [**◀**]/[**▶**] buttons (TIMER [**▲**]/[**▼**]) to select an option.  
You can select:

MON ↔ TUE ↔ WED ↔ THU ↔ FRI  
↕  
SUN ↔ DAYS SET\* ↔ EVERYDAY ↔ SAT

\* You can specify a range of days

**Press the [MEMORY] button (ENTER).**

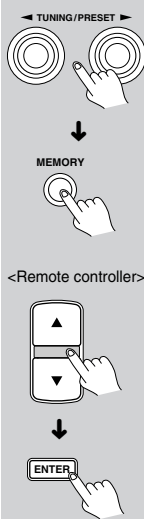


<Remote controller>

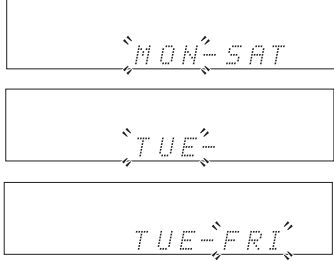
If you selected DAYS SET, you can select the first day and last day in the range.

**Use the TUNING/PRESET** [**◀**]/[**▶**] buttons (TIMER [**▲**]/[**▼**]) to select the first day, and then press the [MEMORY] button (ENTER).

**Use the TUNING/PRESET** [**◀**]/[**▶**] buttons (TIMER [**▲**]/[**▼**]) to select the last day, and then press the [MEMORY] button (ENTER).



<Remote controller>



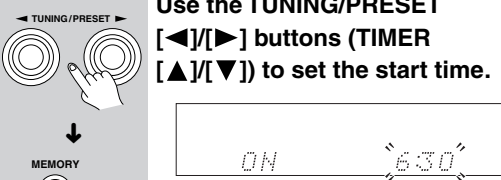
In this example, the timer is set to work from Tuesday to Friday every week.



## Using the Timers—Continued

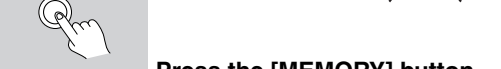
**6**

**<Set the Start Time>**  
**Use the TUNING/PRESET**  
**[◀]/[▶] buttons (TIMER**  
**[▲]/[▼]) to set the start time.**



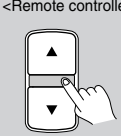
↓

**MEMORY**




↓

**<Remote controller>**



↓



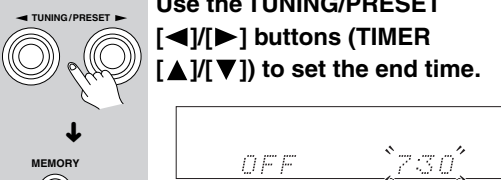
**Press the [MEMORY] button (ENTER).**

**Hints:**

- When the start time is set, the end time is automatically set to 1 hour later.
- When recording to an Onkyo MD recorder that's connected to the A-933 with an **RI** cable, the first several seconds may not be recorded. To ensure that the entire program is recorded, set the start time about one minute before the program actually starts.

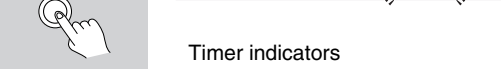
**7**

**<Set the End Time>**  
**Use the TUNING/PRESET**  
**[◀]/[▶] buttons (TIMER**  
**[▲]/[▼]) to set the end time.**



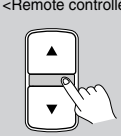
↓

**MEMORY**




↓

**<Remote controller>**

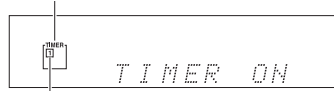


↓



**Press the [MEMORY] button (ENTER).**

**Timer indicators**




Numbers show which timers are on.  
 shows which timers are set to REC.

**Press the [MEMORY] button (ENTER).**

If you want to change any of the timer settings, start again at the beginning of this procedure.

**8**

**<Switch to Standby>**  
**Press the A-933's [STANDBY/ON]**  
**button to set the system to Standby.**



**Notes:**

- If the playback component is an MD recorder, even if you select Memory, Random, 1GR, or another playback mode, normal playback will be used for timed playback.
- Be sure to switch the system to Standby, otherwise the timer will not be able to start playback or recording.
- During timed playback or recording, you can cancel the timer by pressing the [TIMER] button. The timer is also cancelled if you set the sleep timer during timed playback or recording.

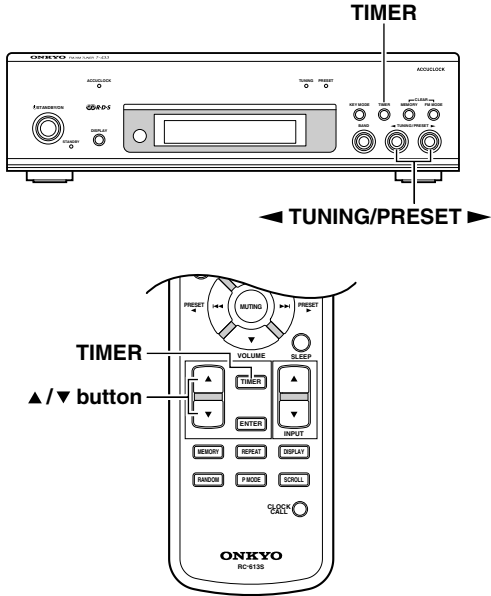
## Using the Timers—Continued

### Switching Timers Off

Timers that have been set can be turned on or off. This is useful, say, when you're on holiday and you want to turn off the timer that you use as a morning alarm.

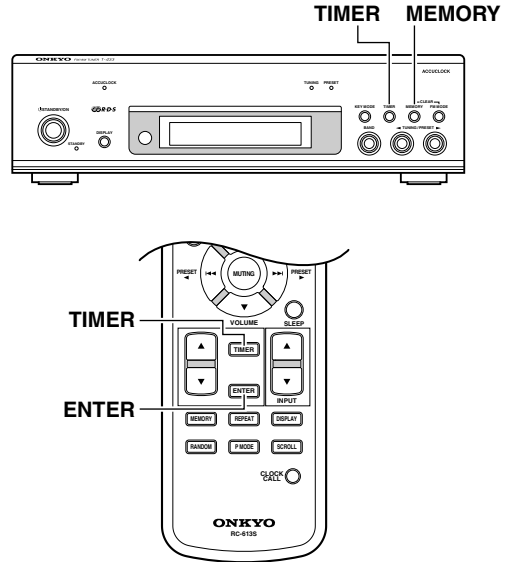
**Note:**

You must set the clock before you can turn a timer on or off (see page 14).



### Checking Timer Settings

You can check the settings of a timer as follows.



<p><b>1</b></p> <p>&lt;Remote controller&gt;</p>	<p>Press the [TIMER] button repeatedly to select the timer.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <span style="font-family: monospace; font-size: 1.2em;">TIMER 1</span> </div> <p>When a timer is on, its number is shown on the display.</p>
<p><b>2</b></p> <p>&lt;Remote controller&gt;</p>	<p>Use the TUNING/PRESET [◀]/[▶] buttons (TIMER [▲]/[▼]) to turn the timer on or off.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <span style="font-family: monospace; font-size: 1.2em;">TIMER ON</span> </div> <p style="text-align: center;">Or</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <span style="font-family: monospace; font-size: 1.2em;">TIMER OFF</span> </div> <p>The previous display reappears after 2 seconds.</p>

Pressing the [TIMER] button while timed playback or recording is in progress will turn the timer off.

<p><b>1</b></p> <p>↓</p> <p>&lt;Remote controller&gt;</p> <p>↓</p>	<p>Press the [TIMER] button repeatedly to select the timer, and then press the [MEMORY] button (ENTER).</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <span style="font-family: monospace; font-size: 1.2em;">TIMER 2</span> </div>
<p><b>2</b></p> <p>&lt;Remote controller&gt;</p>	<p>Press the [MEMORY] button (ENTER) repeatedly to check the settings.</p> <p><b>Example:</b></p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <span style="font-family: monospace; font-size: 1.2em;">PLAY</span> </div> <p style="text-align: center;">↓</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <span style="font-family: monospace; font-size: 1.2em;">C D</span> </div> <p style="text-align: center;">↓</p> <p style="text-align: center;">⋮</p> <p>The display changes each time the button is pressed.</p>

## Using the Timers—Continued

### Notes:

- You can change each setting while it's displayed by using the TUNING/PRESET [◀]/[▶] buttons (TIMER [▲]/[▼]).
- If a timer is off when you change a setting, it will be turned on.
- When you've checked all of the settings, if there are no changes, the previous display reappears.
- You can return to the normal display at anytime by pressing the [TIMER] button.

### ■ Checking the Remaining Sleep Time

To check how much time there is left until the system turns off, press the [SLEEP] button. Note that if you press the [SLEEP] button again while the remaining sleep time is displayed, you'll shorten the sleep time by 10 minutes.

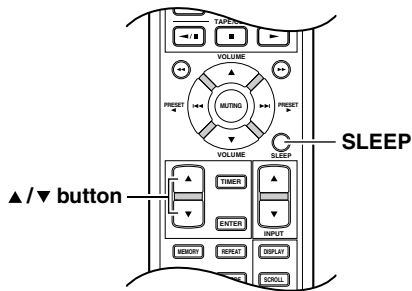
### ■ Canceling the Sleep Timer

To cancel the sleep timer, press the [SLEEP] button repeatedly until the SLEEP indicator goes off.

## Using the Sleep Timer

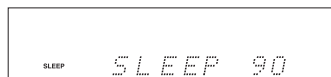
You can set the sleep timer so that it automatically turns the system off after a specified period.

### Setting with the Remote Controller



### Press the [SLEEP] button repeatedly to set the sleep time.

The time decreases in 10-minute steps each time the button is pressed (90, 80, 70, and so on).



Use the TIMER Up and Down [▲]/[▼] buttons to adjust the sleep timer in 1-minute steps. The Up [▲] button increases the time in 1-minute steps up to the maximum of 99 minutes. The Down [▼] button decreases the time in 1-minute steps down to the minimum of 1 minute.

The SLEEP indicator appears on the display when the sleep timer has been set. The specified sleep time is displayed for about 5 seconds, then the previous display reappears.

# Troubleshooting

If you have any trouble using the T-433, look for a solution here. If you can't resolve the issue yourself, contact your Onkyo dealer.

## Power

### ■ Can't turn on the T-433.

- Make sure that the power cord is properly plugged into the wall outlet (page 11, 14).
- Unplug the power cord from the wall outlet, wait five seconds or more, then plug it in again.

### ■ The T-433 turns off unexpectedly.

- If the sleep timer has been set, and the TIMER indicator is shown on the display, the T-433 will turn off automatically after a specified period.
- When timed playback or recording finishes, the T-433 automatically switches to Standby mode.

## Audio

### ■ There's no sound.

- The T-433 is not connected properly. Check all connections and correct as necessary.
- The wrong input source is selected on your amplifier. Check your amplifier's input source setting. Refer to your amplifier's manual.
- Check if the A-933's MAIN IN function is on. Refer to the A-933's instruction manual.
- Make sure the amplifier's volume control is not set to minimum.

## Radio

### ■ Reception is noisy, stereo FM reception suffers from hiss, the Auto Preset function doesn't preset all stations, or the ST indicator doesn't light up when tuned to a stereo FM station.

- Check the antenna connections.
- Change the position of the antenna.
- Move the T-433 away from a nearby TV or computer.
- Move power cords and speaker cables as far away as possible from the tuner's antenna.
- Cars or airplanes can cause noisy interference.
- The radio signal will be weakened if it has to pass through a concrete wall before reaching the antenna.
- Try setting FM mode to mono.
- When listening to an AM station, noise may be heard when you operate the remote controller.
- If none of the above improves the reception, install an outdoor antenna.

### ■ Timed playback or recording doesn't work.

- Make sure the clock has been set correctly. If the clock has not been set, timed playback or recording is not possible.
- If a component is On at the specified start time, the timer will have no effect, so be sure to set the component to Standby beforehand.
- If the settings of two or more timers overlap, some of the timers will not work, so make sure they do not overlap.
- Make sure that the **RI** and audio cables are connected properly.
- Check the settings on the playback and recording components. (Timer recording is not possible with a CDR.)
- For timed recording with an MD recorder, use its analog audio input.

## Remote Controller

### ■ The A-933's remote controller doesn't work.

- Point the remote controller at the A-933's remote sensor (page 9).
- To use **RI**, you must make an **RI** connection and an audio connection between the A-933 and T-433 (page 11).
- Check if the A-933's MAIN IN function is on. Refer to the A-933's instruction manual.

**The T-433 contains a microcomputer for signal processing and control functions. In very rare situations, severe interference, noise from an external source, or static electricity may cause it to lockup. In the unlikely event that this should happen, unplug the power cord, wait at least five seconds, and then plug it again.**

**To reset the T-433 to its factory defaults, turn it on and, while holding down the [MEMORY] button, press the [STANDBY/ON] button. "CLEAR" will appear on the display and the T-433 will enter Standby mode.**

# Specifications

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## ■ FM

<b>Tuning frequency range:</b>	87.50–108.00 MHz
<b>Usable sensitivity:</b>	Stereo: 17.2 dBf 2.0 $\mu$ V (75 $\Omega$ IHF) Mono: 11.2 dBf 1.0 $\mu$ V (75 $\Omega$ IHF)
<b>SN ratio:</b>	Stereo: 70 dB (IHF-A) Mono: 76 dB (IHF-A)
<b>THD (total harmonic distortion):</b>	Stereo: 0.3% (1 kHz) Mono: 0.2% (1 kHz)
<b>Frequency response:</b>	20 Hz–15 kHz / $\pm$ 1.5 dB
<b>Stereo separation:</b>	45 dB (1 kHz)

## ■ AM

<b>Tuning frequency range:</b>	522–1611 kHz
<b>Usable sensitivity:</b>	30 $\mu$ V
<b>SN ratio:</b>	50 dB
<b>THD (total harmonic distortion):</b>	0.7%

## ■ General

<b>Power supply:</b>	AC 230–240 V, 50 Hz
<b>Power consumption:</b>	10 W
<b>Standby power consumption:</b>	1 W
<b>Dimensions (W <math>\times</math> H <math>\times</math> D):</b>	275 $\times$ 78 $\times$ 309 mm 10-13/16 $\times$ 3-1/16 $\times$ 12-3/16 in.
<b>Weight:</b>	3.0 kg 6.6 lbs.

Specifications and features are subject to change without notice.

# Memo

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# Memo

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